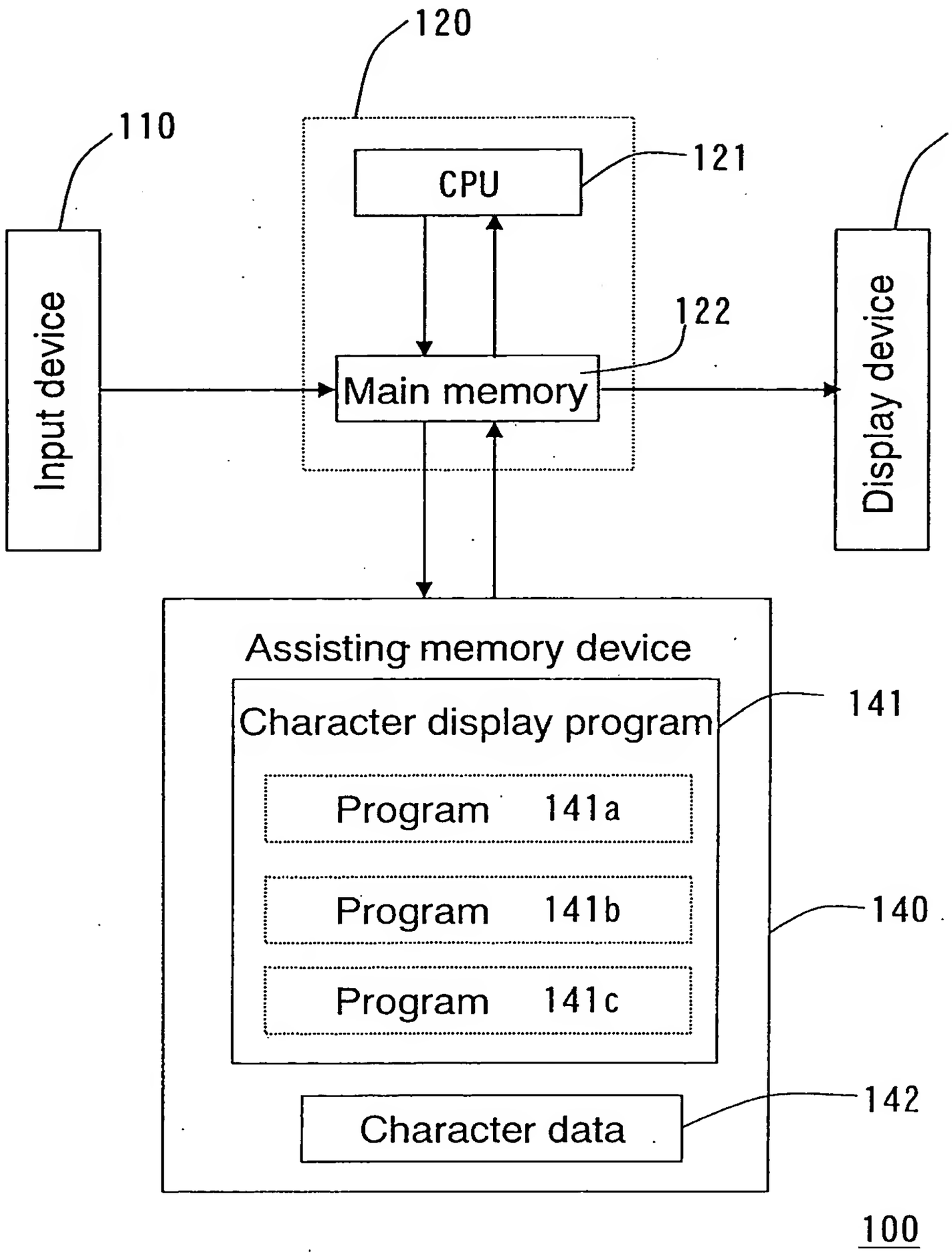
Fig. 1


120
110
CPU
121
130
Input device
122
Main memory
Display device
Assisting memory device
Character display program
141
Program 141a
Program 141b
140
Program 141c
Character data
142
100

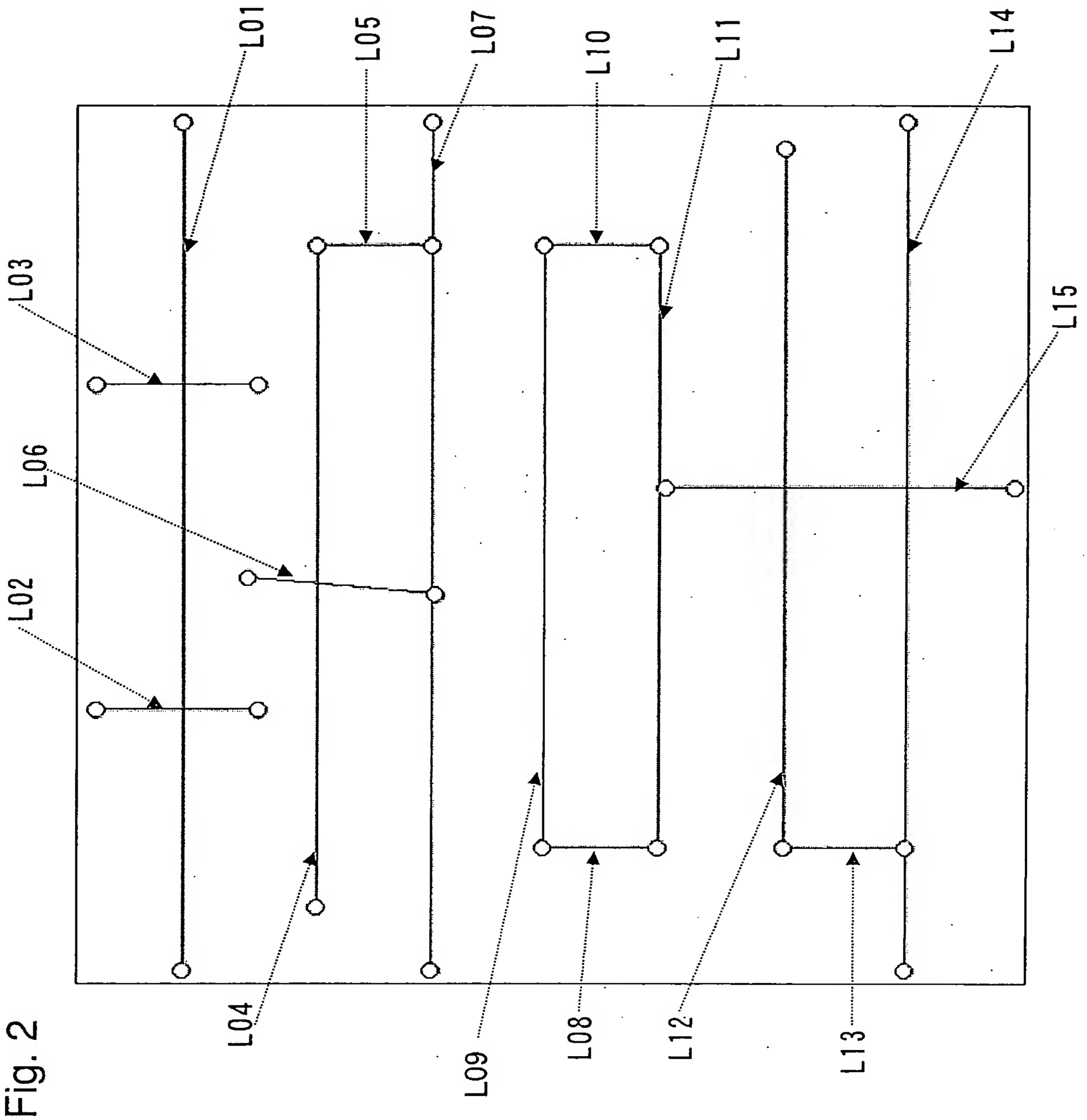


Fig. 2

Fig. 3

1617 Strokes of "葦"	Block number in the Y-axis derection	Reference point data in the Y-axis deirection	Destance flag in the Y-axis direction	Omission flag in the Y-axis direction	Block number in the X-axis derection	Reference point data in the X-axis deirection	Destance flag in the X-axis direction	Omission flag in the X-axis direction
L01	1	1	1	×	1	×	×	×
	0	231						
	255	231						
L02	1	×	×	×	1	1	3	×
	79	255						
	79	210						
L03	1	×	×	×	1	1	2	×
	176	255						
	176	210						
L04	1	1	2	×	1	×	×	×
	19	194						
	218	194						
L05	1	×	×	×	1	×	×	×
	218	194						
	218	162						
L06	1	×	×	×	1	×	×	×
	118	213						
	113	162						
L07	1	1	2	×	1	×	1	×
	0	162						
	255	162						
L08	1	×	×	×	1	1	2	×
	37	131						
	37	99						
L09	1	×	2	1	1	×	×	×
	37	131						
	218	131						
L10	1	×	×	×	1	1	1	×
	218	131						
	218	99						
L11	1	1	2	2	1	×	×	×
	37	99						
	218	99						
L12	1	1	2	3	1	×	×	×
	37	64						
	247	64						
L13	1	×	×	×	1	×	×	×
	37	64						
	37	30						
L14	1	1	2	×	1	×	×	×
	0	30						
	255	30						
L15	1	2	1	×	1	×	×	×
	145	97						
	145	0						

Fig. 4

4432 Strokes of "明"	Block number in the Y-axis derection	Reference point data in the Y-axis deirection	Destance flag in the Y-axis direction	Omission flag in the Y-axis direction	Block number in the X-axis derection	Reference point data in the X-axis deirection	Destance flag in the X-axis direction	Omission flag in the X-axis direction
L01	1	×	×	×	1	1	2	×
	22	228						
	22	40						
L02	1	1	2	×	1	×	×	×
	22	228						
	86	228						
L03	1	×	×	×	1	1	2	×
	86	228						
	86	40						
L04	1	1	2	×	1	×	×	×
	22	135						
	86	135						
L05	1	1	2	×	1	×	×	×
	22	40						
	86	40						
L06	2	×	×	×	1	1	2	×
	141	240						
	141	94						
	137	44						
	127	10						
L07	2	1	2	×	1	×	×	×
	141	240						
	233	240						
L08	2	×	×	×	1	1	2	×
	233	240						
	233	9						
L09	2	2	2	×	1	×	×	×
	233	9						
	198	9						
L10	2	1	2	×	1	×	×	×
	141	167						
	233	167						
L11	2	1	2	×	1	×	×	×
	141	94						
	233	94						

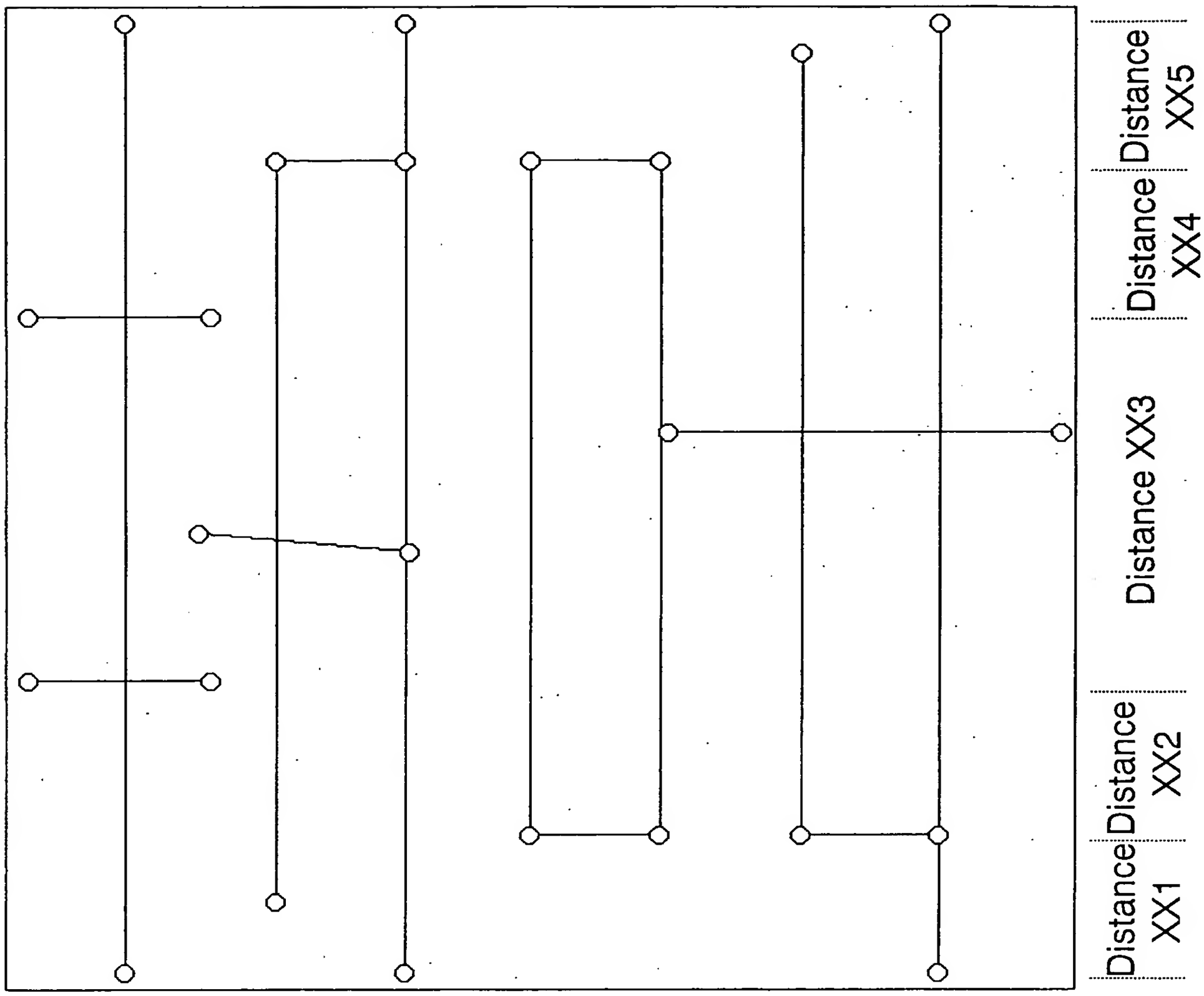

Distance YY1
Distance YY2
Distance YY3
Distance YY4
Distance YY5
Distance YY6
Distance YY7
Distance YY8
Distance XX5
Distance XX4
Distance XX3
Distance XX2
Distance XX1

Fig. 5

Fig. 6

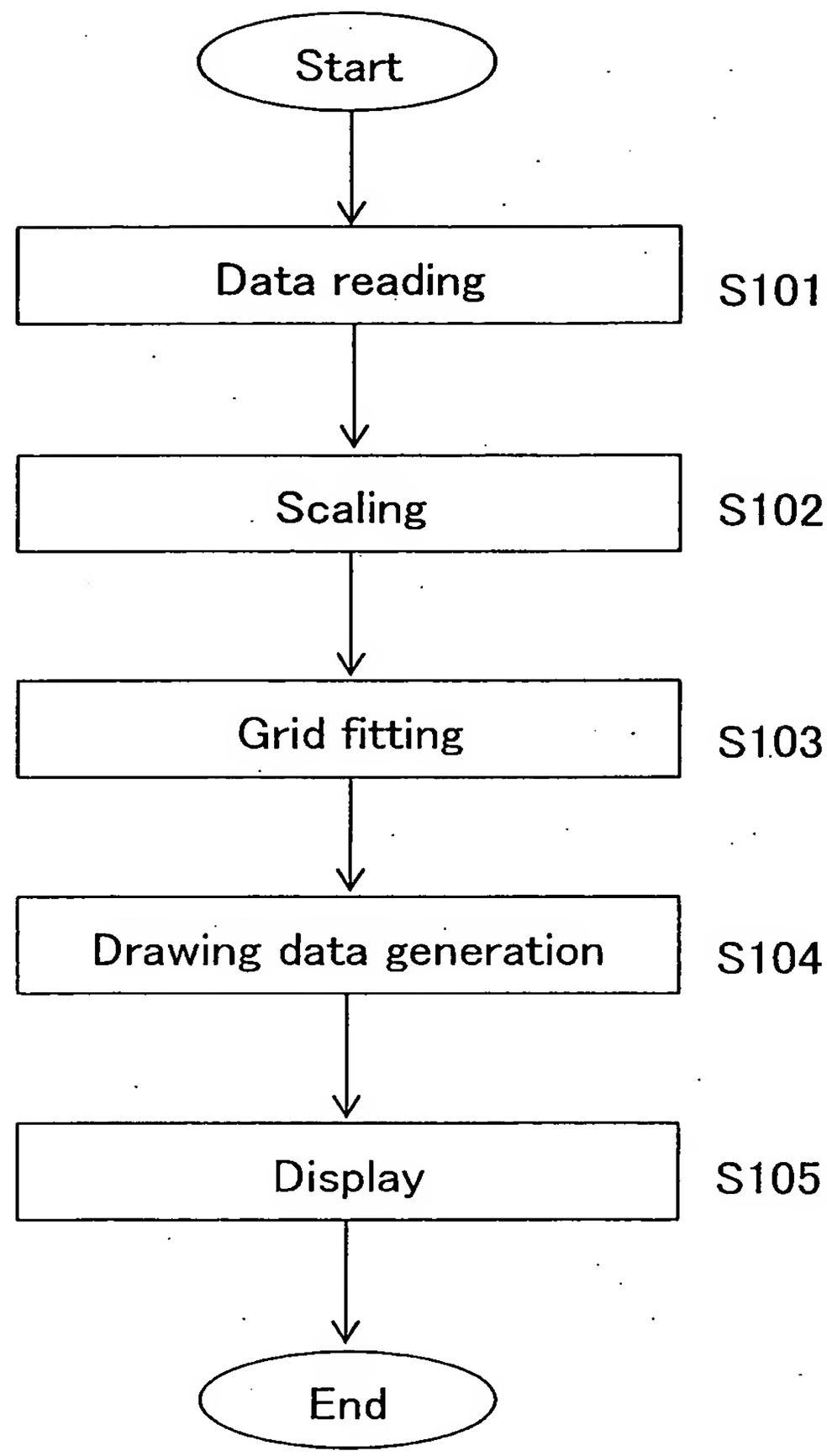

Start
Data reading
S101
Scaling
S102
Grid fitting
S103
Drawing data generation
S104
Display
S105
End

Fig. 7

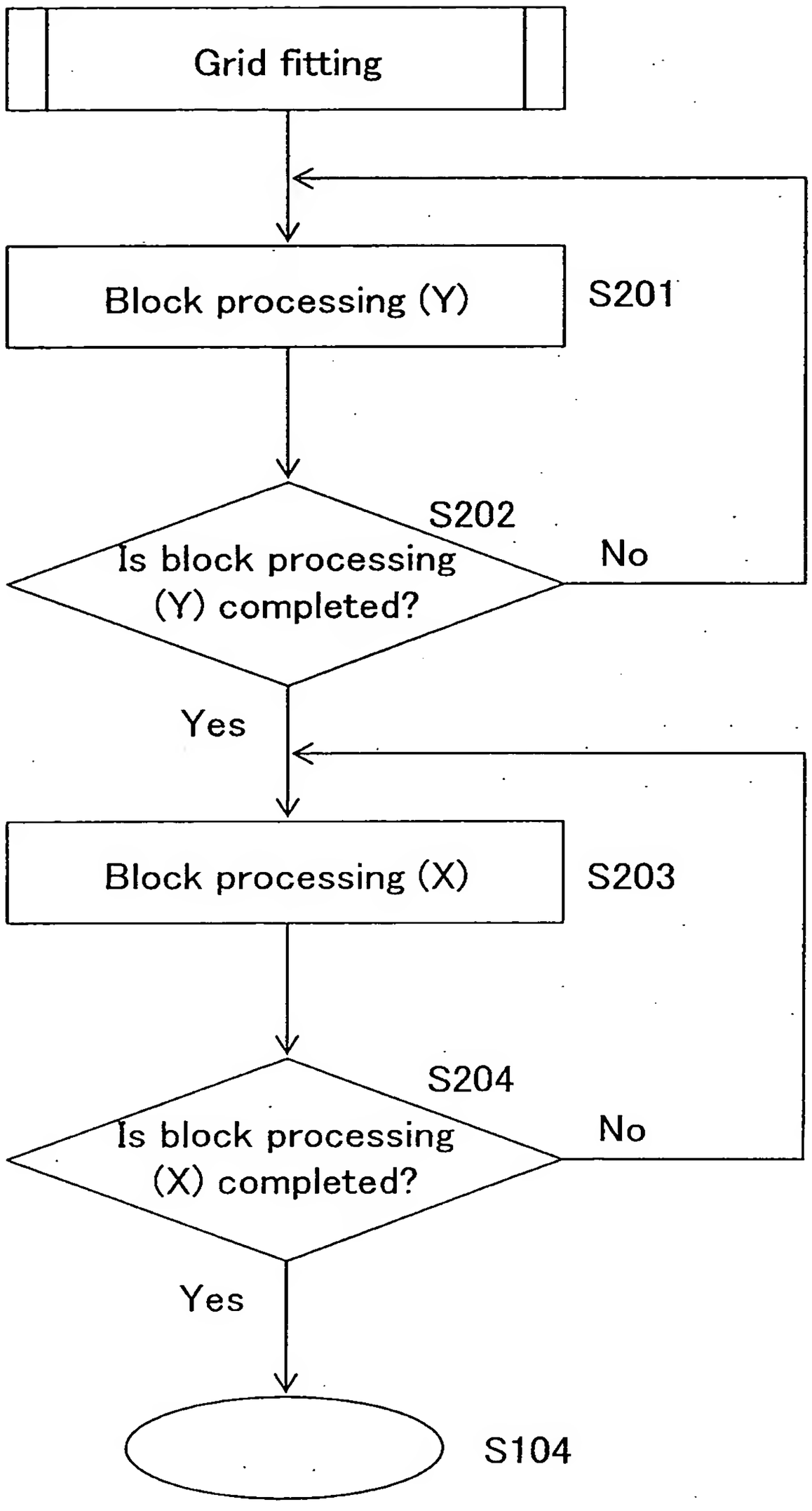

Grid fitting
Block processing (Y)
S201
S202
Is block processing (Y) completed?
No
Yes
Block processing (X)
S203
S204
Is block processing (X) completed?
No
Yes
S104

Fig. 8

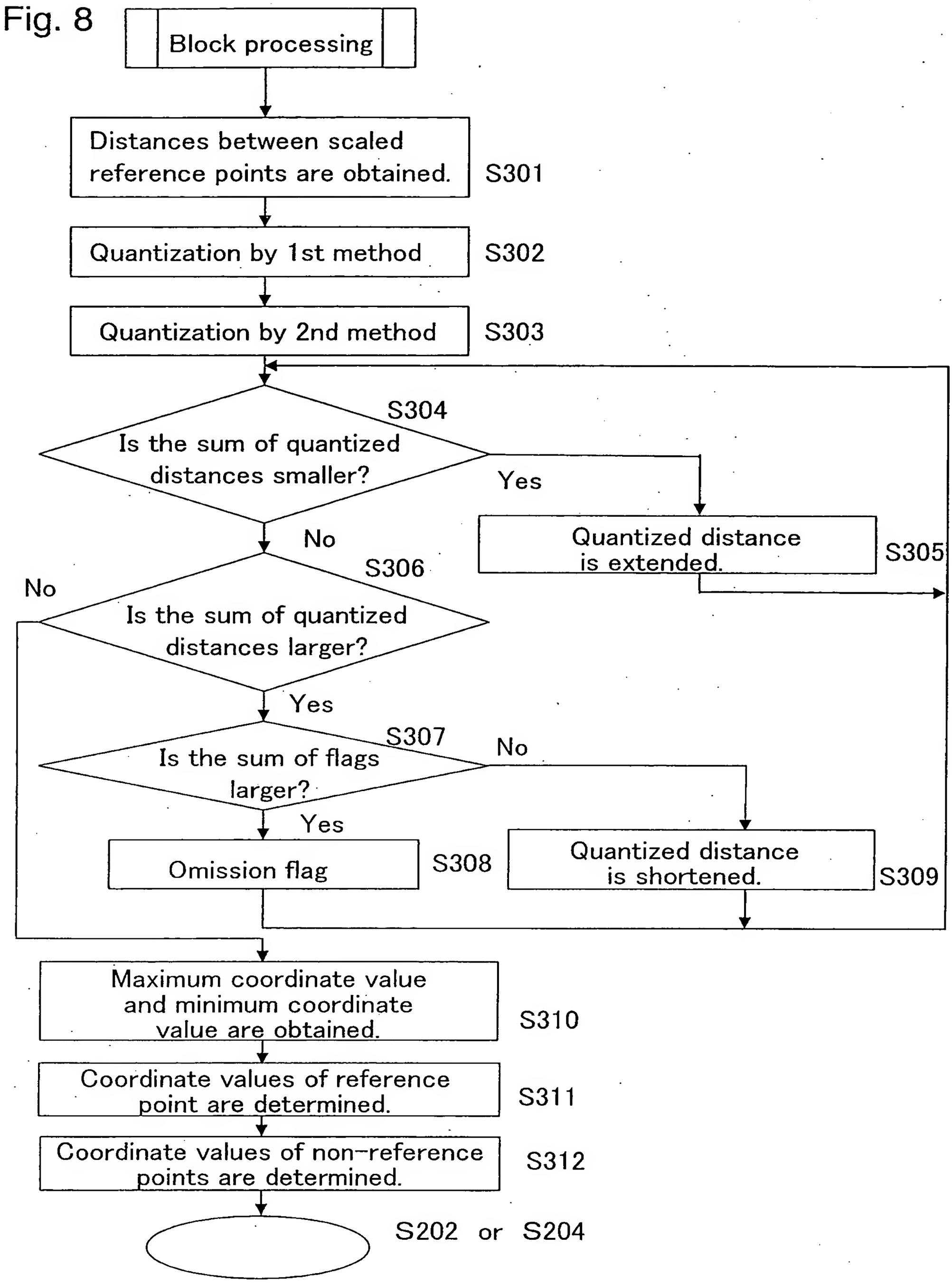

Block processing
Distances between scaled reference points are obtained.
S301
Quantization by 1st method
S302
Quantization by 2nd method
S303
S304
Is the sum of quantized distances smaller?
Yes
Quantized distance is extended.
S305
No
S306
No
Is the sum of quantized distances larger?
Yes
S307
Is the sum of flags larger?
No
Yes
Omission flag
S308
Quantized distance is shortened.
S309
Maximum coordinate value and minimum coordinate value are obtained.
S310
Coordinate values of reference point are determined.
S311
Coordinate values of non-reference points are determined.
S312
S202 or S204

Fig. 9

Pre-scaling coordinate X	Pre-scaling coordinate Y	Scaled coordinate X	Scaled coordinate Y
0	231	0.00	26.27
255	231	29.00	26.27
79	255	8.98	29.00
79	210	8.98	23.88
176	255	20.02	29.00
176	210	20.02	23.88
19	194	2.16	22.06
218	194	24.79	22.06
218	194	24.79	22.06
218	162	24.79	18.42
118	213	13.42	24.22
113	162	12.85	18.42
0	162	0.00	18.42
255	162	29.00	18.42
37	131	4.21	14.90
37	99	4.21	11.26
37	131	4.21	14.90
218	131	24.79	14.90
218	131	24.79	14.90
218	99	24.79	11.26
37	99	4.21	11.26
218	99	24.79	11.26
37	64	4.21	7.28
247	64	28.09	7.28
37	64	4.21	7.28
37	30	4.21	3.41
0	30	0.00	3.41
255	30	29.00	3.41
145	97	16.49	11.03
145	0	16.49	0.00

Fig. 10

Distance No.	Distance	Distance flag	Quantized	Error	After adjusted once	Error
Distance Y1	2.73	1	3	0.27	3	0.27
Distance Y2	4.21	2	4	−0.21	4	−0.21
Distance Y3	3.64	2	4	0.36	4	0.36
Distance Y4	3.52	2	4	0.48	3	−0.52
Distance Y5	3.64	2	4	0.36	4	0.36
Distance Y6	3.98	2	4	0.02	4	0.02
Distance Y7	3.87	2	4	0.13	4	0.13
Distance Y8	3.41	1	3	−0.41	3	−0.41
Total	29.00	14	30		29	

Fig. 11

Stroke	Pre-scaling coordinate X	Pre-scaling coordinate Y	Scaled coordinate X	Scaled coordinate Y	After grid fitting X	After grid fitting Y
L01	0	231	0.00	26.27	0	26
	255	231	29.00	26.27	29	26
L02	79	255	8.98	29.00	9	29
	79	210	8.98	23.88	9	24
L03	176	255	20.02	29.00	20	29
	176	210	20.02	23.88	20	24
L04	19	194	2.16	22.06	2	22
	218	194	24.79	22.06	25	22
L05	218	194	24.79	22.06	25	22
	218	162	24.79	18.42	25	18
L06	118	213	13.42	24.22	13	24
	113	162	12.85	18.42	12	18
L07	0	162	0.00	18.42	0	18
	255	162	29.00	18.42	29	18
L08	37	131	4.21	14.90	4	15
	37	99	4.21	11.26	4	11
L09	37	131	4.21	14.90	4	15
	218	131	24.79	14.90	25	15
L10	218	131	24.79	14.90	25	15
	218	99	24.79	11.26	25	11
L11	37	99	4.21	11.26	4	11
	218	99	24.79	11.26	25	11
L12	37	64	4.21	7.28	4	7
	247	64	28.09	7.28	28	7
L13	37	64	4.21	7.28	4	7
	37	30	4.21	3.41	4	3
L14	0	30	0.00	3.41	0	3
	255	30	29.00	3.41	29	3
L15	145	97	16.49	11.03	16	11
	145	0	16.49	0.00	16	0

Fig. 12

Distance No.	Distance	Distance flag	Quantized	Error
Distance X1	4.21	1	4	−0.21
Distance X2	4.77	2	5	0.23
Distance X3	11.04	3	11	−0.04
Distance X4	4.77	2	5	0.23
Distance X5	4.21	1	4	−0.21
Total	29.00	9	29	

Fig. 13

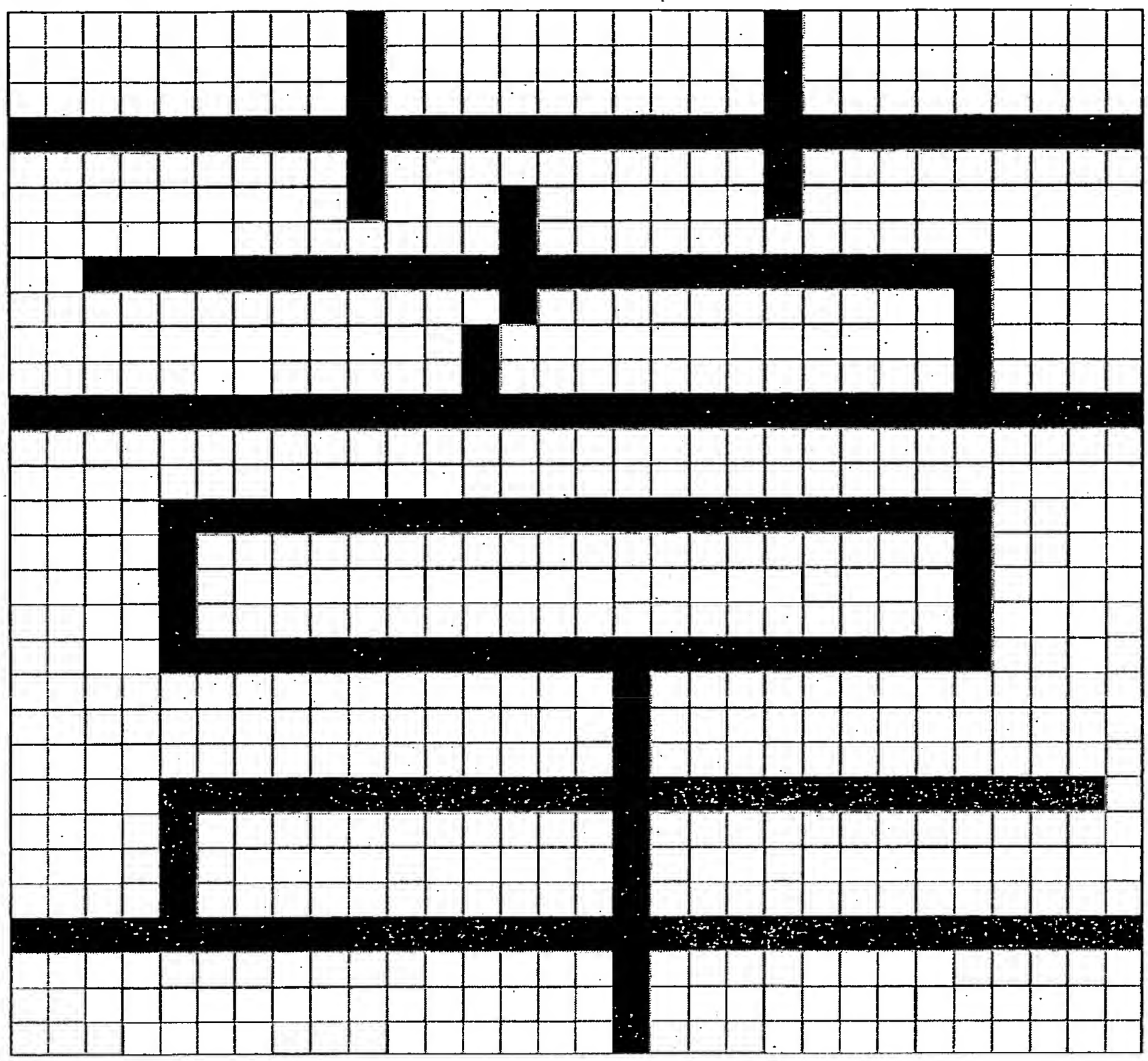


Fig. 14

Stroke	Pre-scaling coordinate X	Pre-scaling coordinate Y	Scaled coordinate X	Scaled coordinate Y
L01	0	231	0.00	11.78
	255	231	13.00	11.78
L02	79	255	4.03	13.00
	79	210	4.03	10.71
L03	176	255	8.97	13.00
	176	210	8.97	10.71
L04	19	194	0.97	9.89
	218	194	11.11	9.89
L05	218	194	11.11	9.89
	218	162	11.11	8.26
L06	118	213	6.02	10.86
	113	162	5.76	8.26
L07	0	162	0.00	8.26
	255	162	13.00	8.26
L08	37	131	1.89	6.68
	37	99	1.89	5.05
L09	37	131	1.89	6.68
	218	131	11.11	6.68
L10	218	131	11.11	6.68
	218	99	11.11	5.05
L11	37	99	1.89	5.05
	218	99	11.11	5.05
L12	37	64	1.89	3.26
	247	64	12.59	3.26
L13	37	64	1.89	3.26
	37	30	1.89	1.53
L14	0	30	0.00	1.53
	255	30	13.00	1.53
L15	145	97	7.39	4.95
	145	0	7.39	0.00

Fig. 15

Distance No.	Distance	Distance flag	Quantized	Error	After adjusted once	Error
Distance Y1	1.22	1	1	-0.22	1	-0.22
Distance Y2	1.89	2	2	0.11	2	0.11
Distance Y3	1.63	2	2	0.37	2	0.37
Distance Y4	1.58	2	2	0.42	0	-1.58
Distance Y5	1.63	2	2	0.37	2	0.37
Distance Y6	1.79	2	2	0.21	2	0.21
Distance Y7	1.73	2	2	0.27	2	0.27
Distance Y8	1.53	1	2	0.47	2	0.47
Total	13.00	14	15		13	

Fig. 16

Stroke	Pre-scaling coordinate X	Pre-scaling coordinate Y	Scaled coordinate X	Scaled coordinate Y	After grid fitting X	After grid fitting Y
L01	0	231	0.00	11.78	0	12
	255	231	13.00	11.78	13	12
L02	79	255	4.03	13.00	4	13
	79	210	4.03	10.71	4	11
L03	176	255	8.97	13.00	9	13
	176	210	8.97	10.71	9	11
L04	19	194	0.97	9.89	1	10
	218	194	11.11	9.89	11	10
L05	218	194	11.11	9.89	11	10
	218	162	11.11	8.26	11	8
L06	118	213	6.02	10.86	6	11
	113	162	5.76	8.26	6	8
L07	0	162	0.00	8.26	0	8
	255	162	13.00	8.26	13	8
L08	37	131	1.89	6.68	2	8
	37	99	1.89	5.05	2	6
L09	37	131	1.89	6.68	2	8
	218	131	11.11	6.68	11	8
L10	218	131	11.11	6.68	11	8
	218	99	11.11	5.05	11	6
L11	37	99	1.89	5.05	2	6
	218	99	11.11	5.05	11	6
L12	37	64	1.89	3.26	2	4
	247	64	12.59	3.26	13	4
L13	37	64	1.89	3.26	2	4
	37	30	1.89	1.53	2	2
L14	0	30	0.00	1.53	0	2
	255	30	13.00	1.53	13	2
L15	145	97	7.39	4.95	7	6
	145	0	7.39	0.00	7	0

Distance No.	Distance	Distance flag	Quantized	Error
Distance X1	1.89	1	2	0.11
Distance X2	2.14	2	2	-0.14
Distance X3	4.94	3	5	0.06
Distance X4	2.14	2	2	-0.14
Distance X5	1.89	1	2	0.11
Total	13.00	9	13	

Fig. 17

Fig. 18

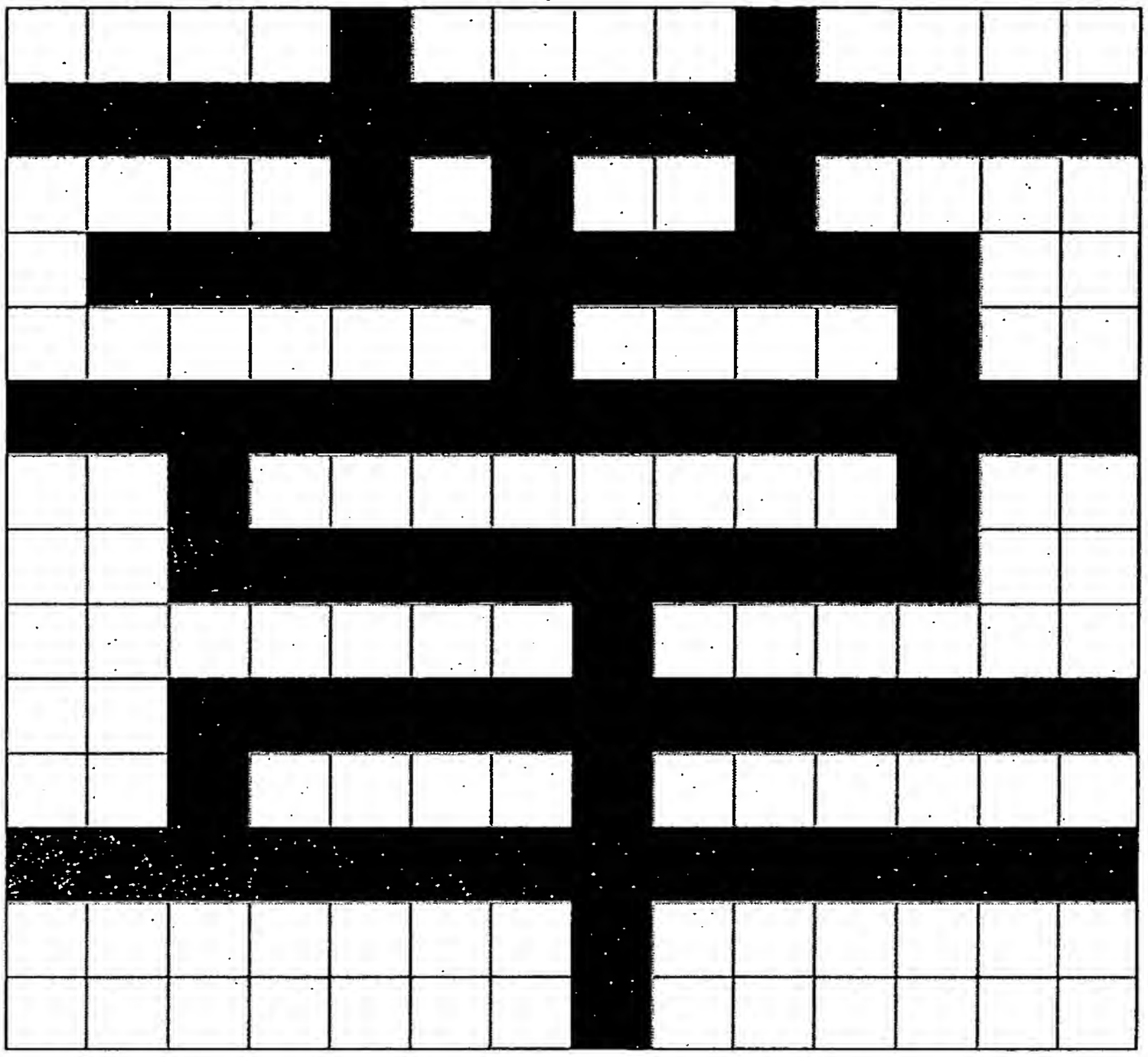
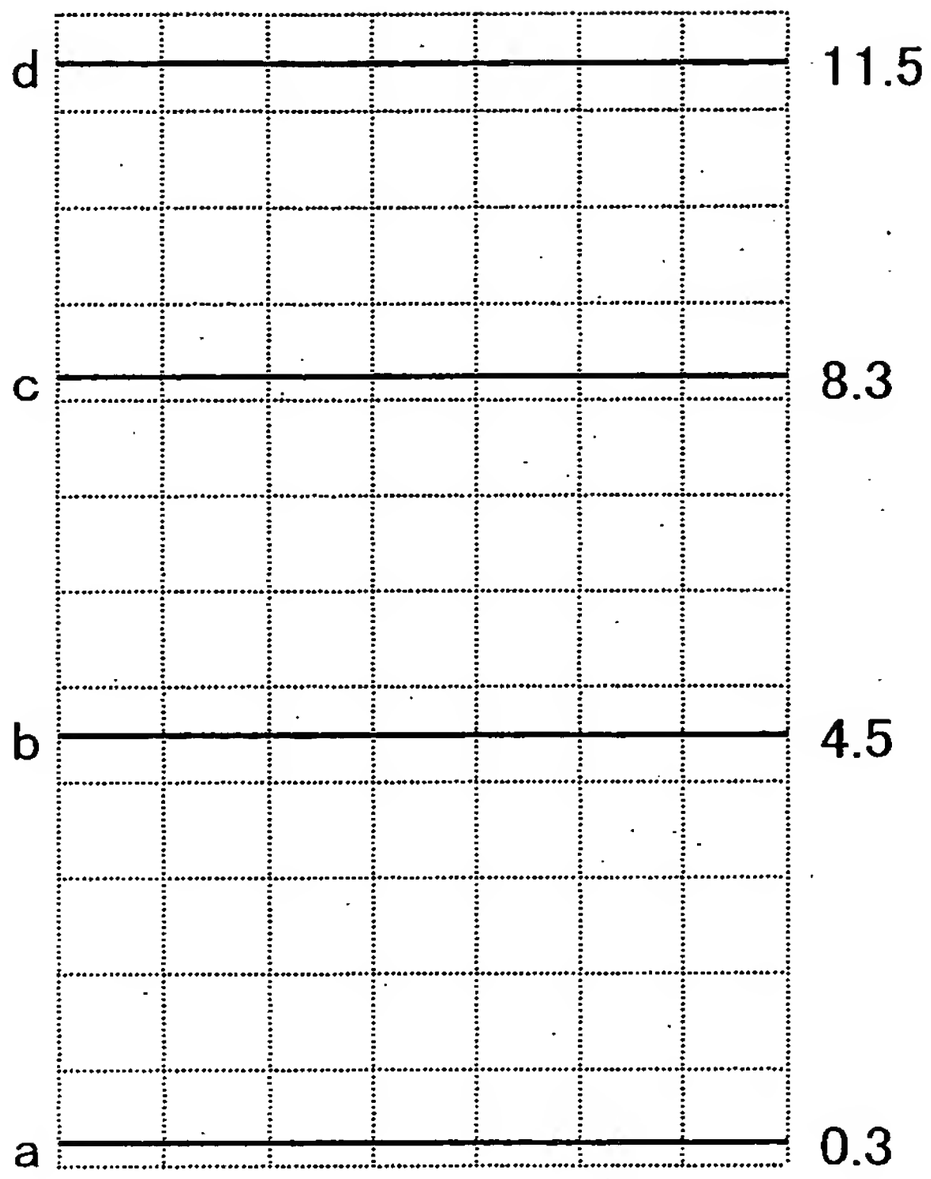
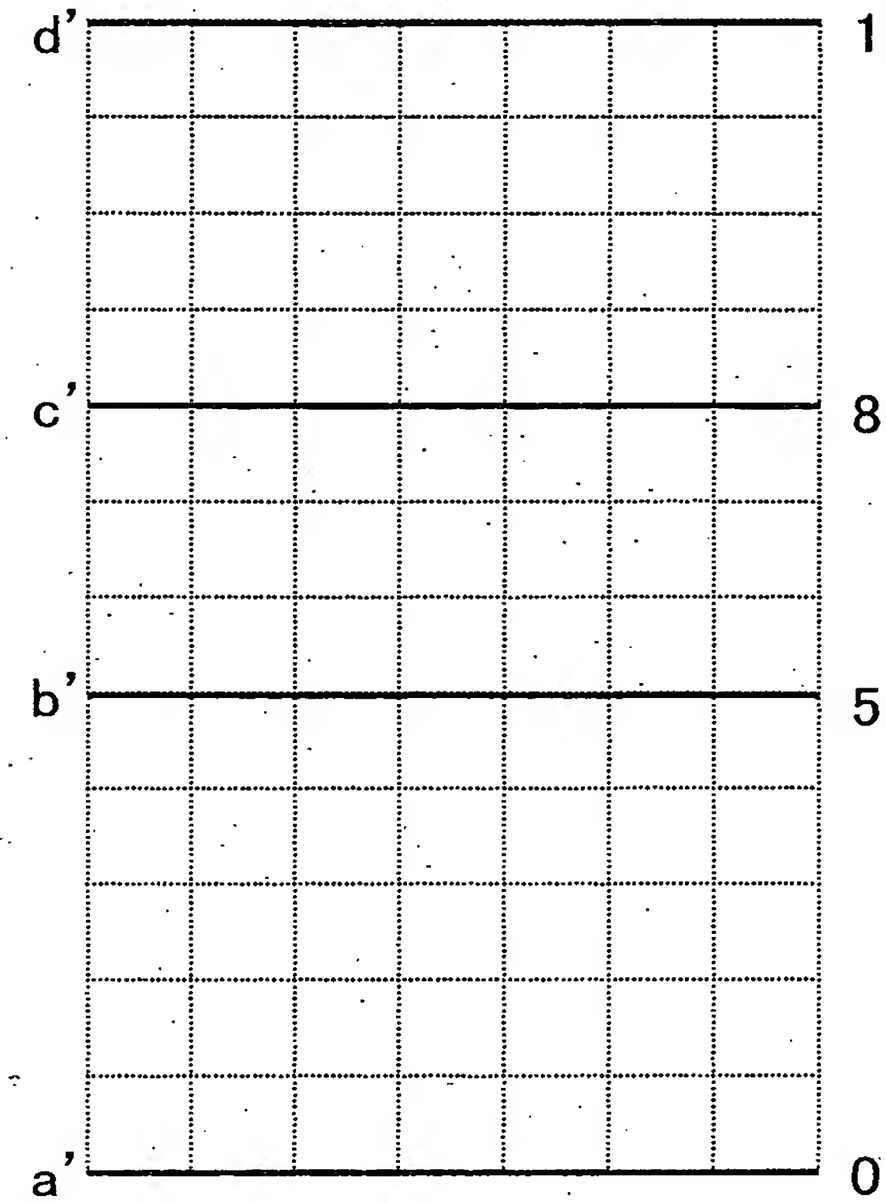


Fig. 19

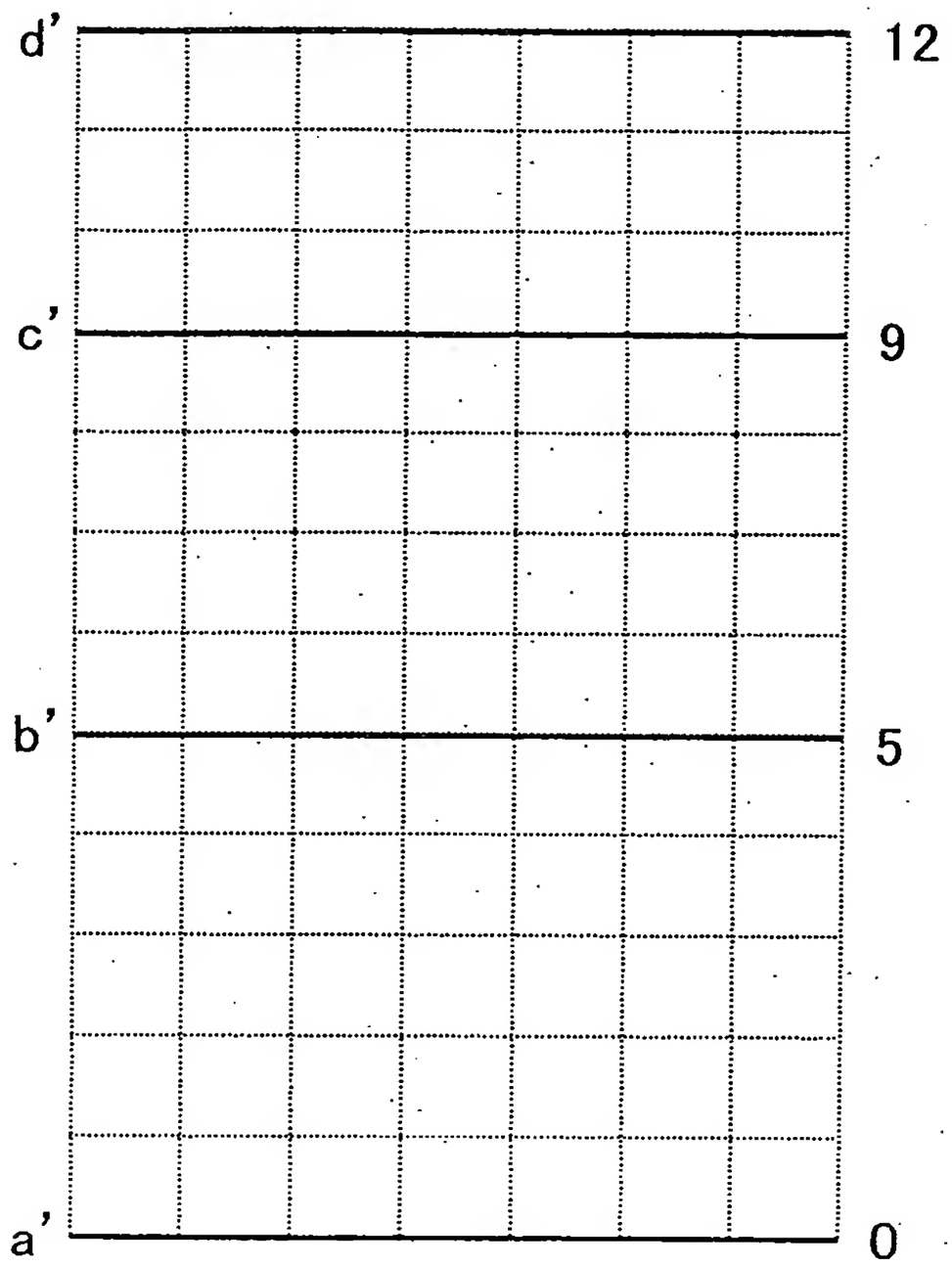


Coordinate system A



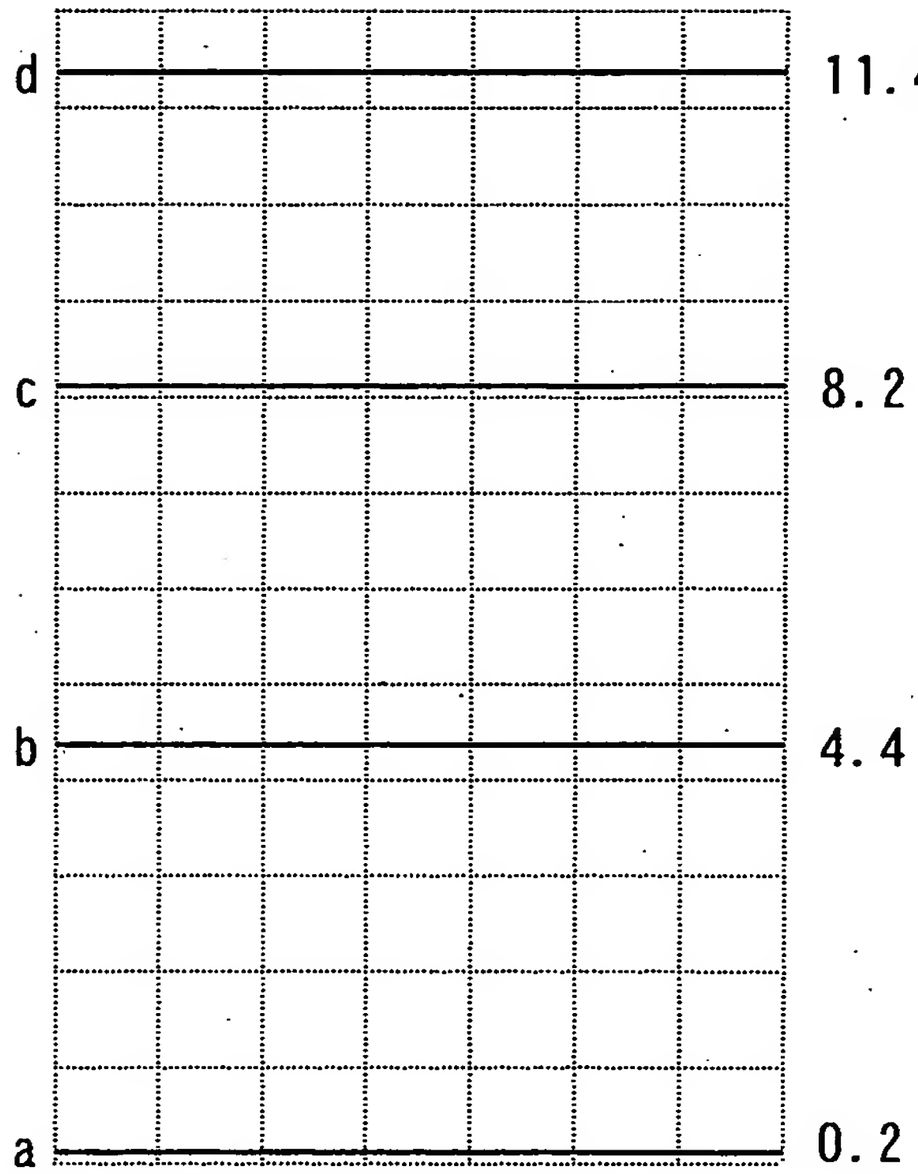
Coordinate system B

Fig. 20

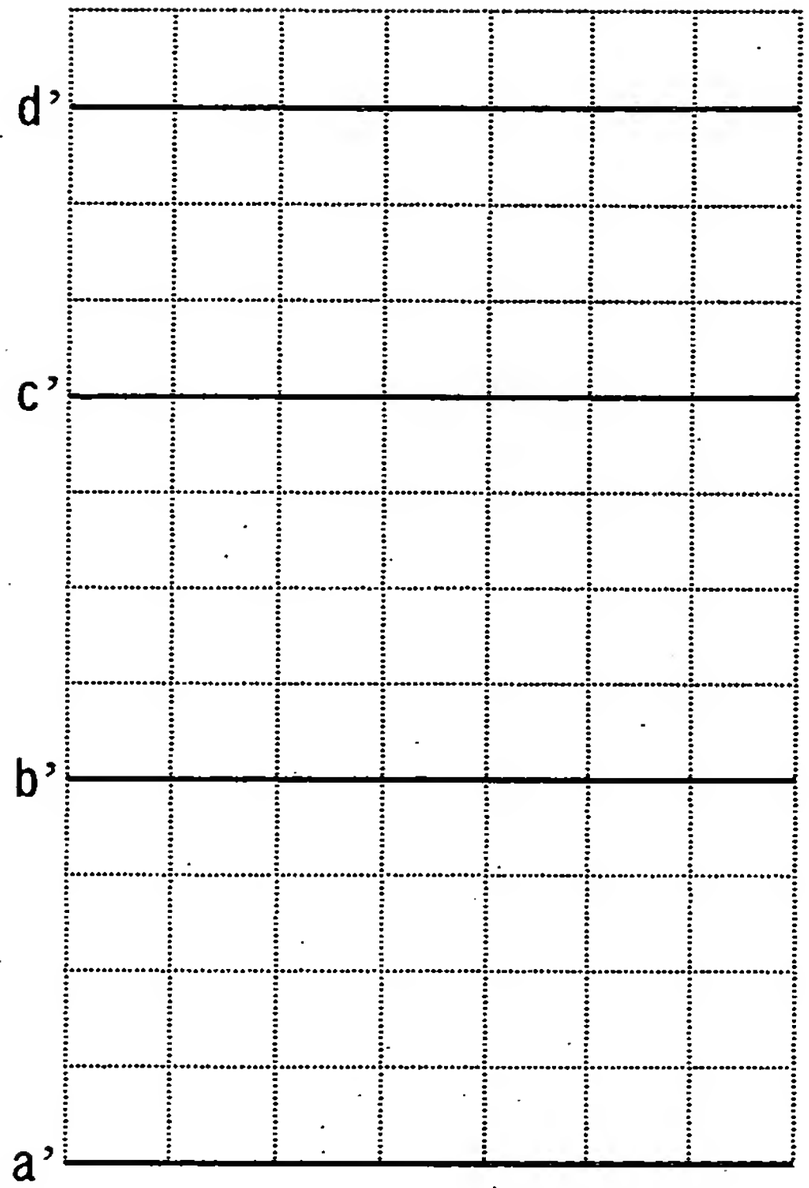


Coordinate system C

Fig. 21

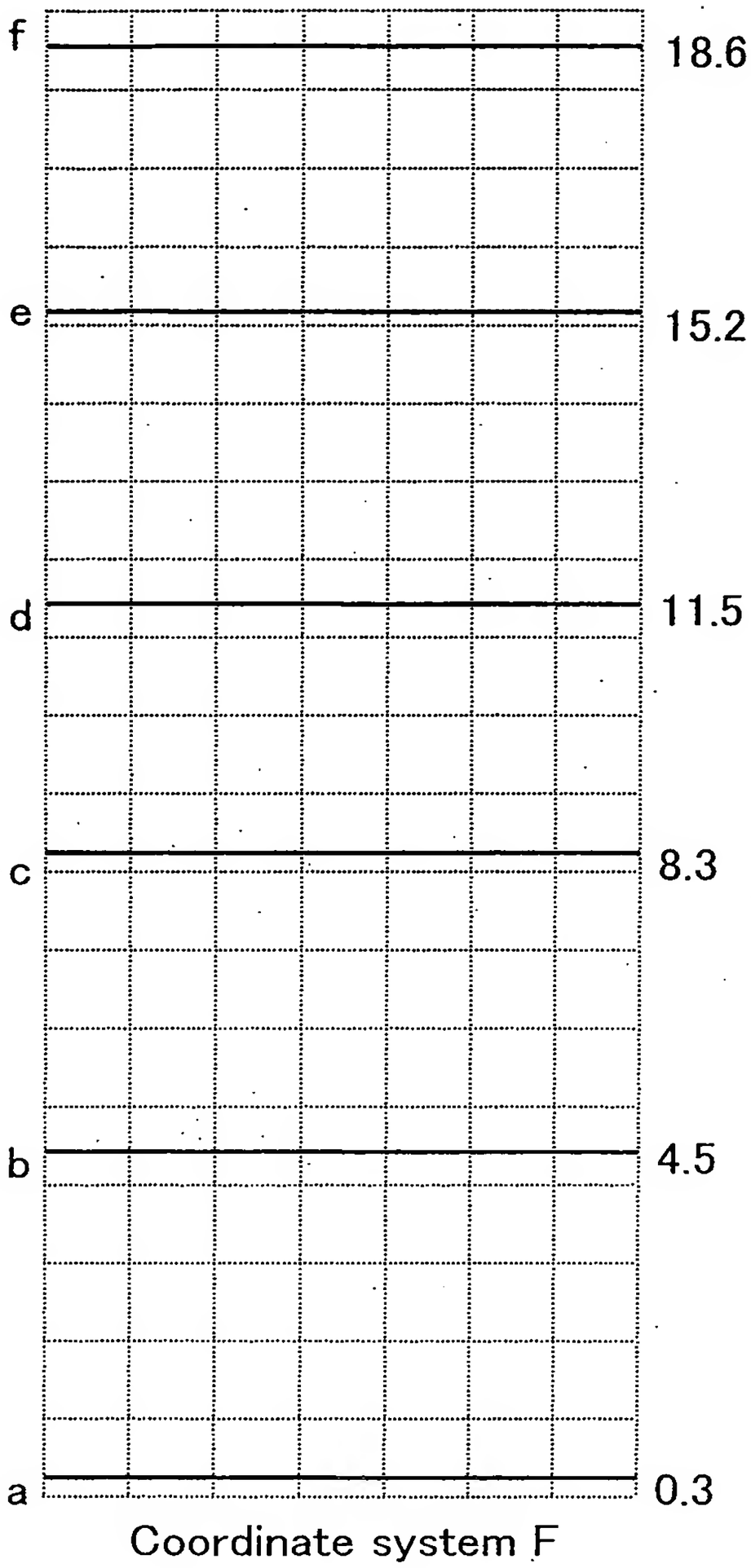


Coordinate system D

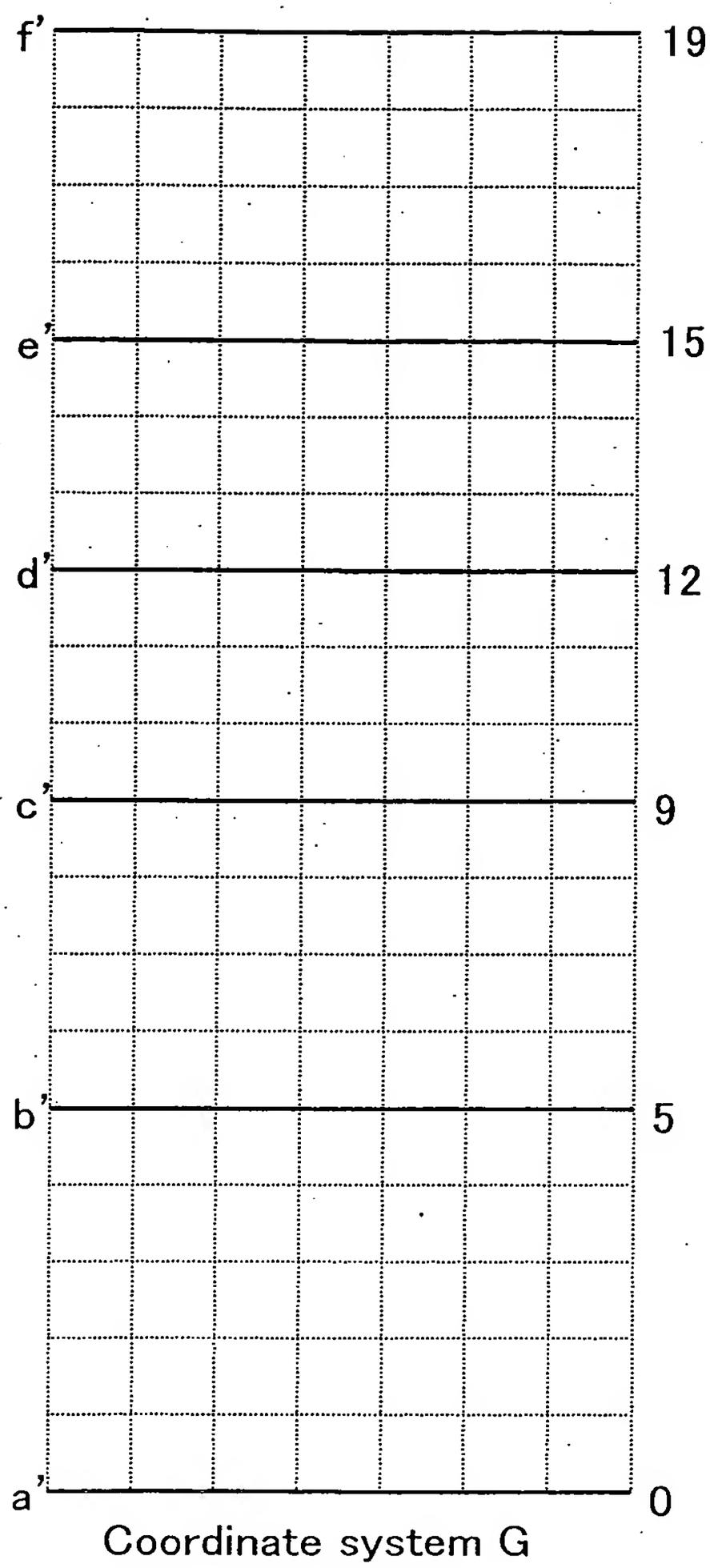


Coordinate system E

Fig. 22

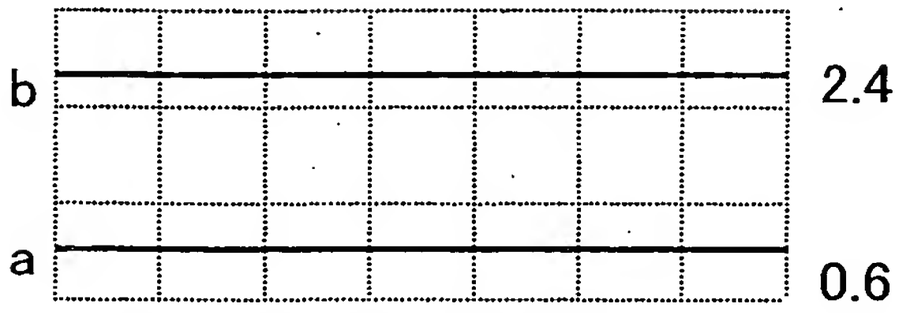


Coordinate system F

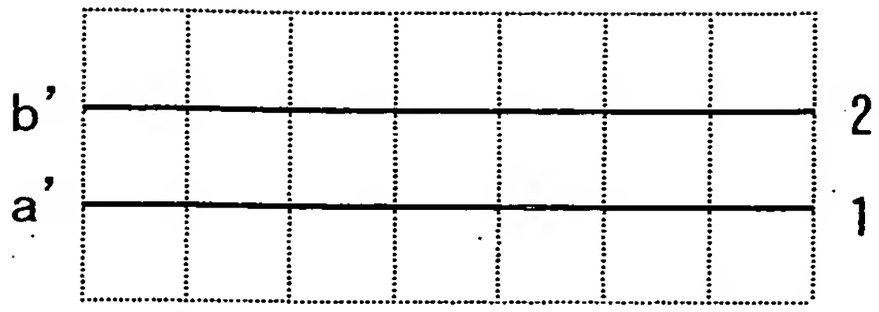


Coordinate system G

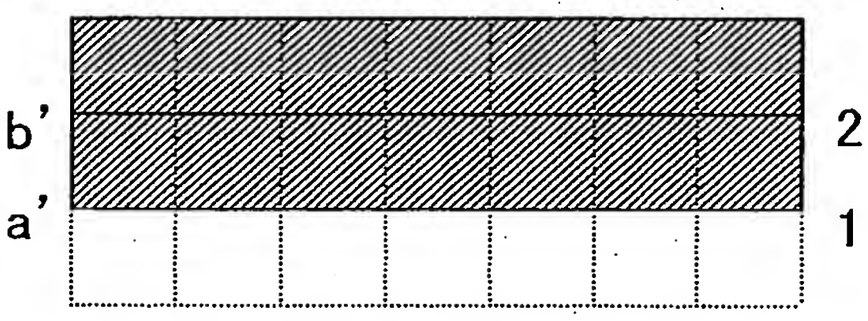
Fig. 23



Coordinate system H



Coordinate system I



Coordinate system J